

## REMARKS

Applicants respectfully request entry of the amendments set forth above and reconsideration and withdrawal of the restriction requirement, objections, and claim rejections in view of the amendments and the following remarks.

Applicants have amended claims 125, 126, 128, 129, 144, 145, 150, 151, 152, 154, 157, 158, 159, 161, and 162 to improve form, to direct the claim to particular embodiments, and/or to put the amended claim in condition for allowance. Claims 123 and 163 have been canceled without prejudice.

Applicants respectfully submit that this Amendment should require no further search by the Examiner at least because the claim amendments do not add any features that were not present within claims that were allowed in the Office Action and/or do not significantly alter the scope of the claims. Claim 150 has been amended so that the claim is now drawn to polypeptides comprising amino acid sequences as recited in claim 124 or 127 and having at least one substituent attached to a side chain of the SCHAG polypeptide, as previously recited in the claim. The amino acid sequences recited in the claim are the same as recited in claims 124 or 127, which were allowed in the Office Action. No new matter is introduced.

### Withdrawal of Previous Rejections

Applicants acknowledge and thank the Examiner for withdrawing all objections and rejections not expressly set forth in the Office Action and for indicating that claims 124, 127, 132-135, 137, and 138 are allowed.

### Restriction Requirement

Applicants maintain their traversal of the restriction requirement for at least the reasons forth in previous office action responses and respectfully request reconsideration and withdrawal of the restriction requirement.

### Rejections under 35 U.S.C. 112, second paragraph

Claims 123, 125, 126, 128, 129, 139-140, 144, 145, 150-155, 157-161 and 163 are rejected under 35 USC 112, second paragraph as allegedly being indefinite for reasons detailed in the Office Action. In the interests of advancing prosecution and without waiver or disclaimer, Applicants have canceled claims 123 and 162 and have amended other claims as described below:

Claims 125 and 128 stand rejected as allegedly unclear for reciting “exactly one amino acid”. Applicants respectfully disagree. One of skill in the art would understand that the phrase “exactly one amino acid” referred to the amino acid substituted at position 2 (in claim 125) or position 184 (in claim 128). However, in the interest of advancing prosecution claim 125 has been amended to recite that the SCHAG amino acid sequence comprises an amino acid with a reactable side chain selected from the group consisting of cysteine, lysine, glutamate, aspartate, and arginine substituted for the amino acid present at position 2 of SEQ ID NO: 2, and said amino acid substituted at position 2 of SEQ ID NO: 2 is the only amino acid with a reactive side chain present in the SCHAG amino acid sequence. Claim 128 has been amended to recite that the SCHAG amino acid sequence comprises an amino acid with a reactable side chain selected from the group consisting of cysteine and arginine substituted for the amino acid present at position 184 of SEQ ID NO: 2, and said amino acid substituted at position 184 of SEQ ID NO: 184 is the only amino acid with a reactive side chain present in the SCHAG amino acid sequence.

Claims 126 and 129 are rejected as allegedly vague and ambiguous for reciting “wherein the amino acid with a reactable side chain is a cysteine or glutamate residue”. Applicants respectfully submit that the recitation “residue” does not result in vagueness or ambiguity. One of skill in the art would clearly understand the meaning of the claims whether they recite “amino acid”, “amino acid residue” or “residue”. However, for purposes of internal consistency with the language of claims 124 and 127, the word “residue” has been deleted as suggested by the Examiner.

With respect to claims 144 and 145, Applicants respectfully submit that it is common in the art to refer to a polypeptide as a “sequence” and does not result in indefiniteness. However, solely to advance prosecution the claims have been amended to recite “polypeptide”, consistent with the other claims.

Claim 150 was rejected as allegedly vague and ambiguous for reciting a polypeptide with “at least one substituent attached to a side chain... exposed to the environment.” While Applicants disagree with the rejection, claim 150 has been amended as described above, thereby obviating the rejection.

Claims 152-154, 159-161, and 163 were rejected as allegedly indefinite for reciting attachments of substituents to different amino acids within SEQ ID NO: 2 while claim 150 was allegedly limited to the polypeptide of SEQ ID NO: 2 with no substitutions. Applicants respectfully disagree. Claim 150 recited “(c) amino acid sequences that are at least 90%

identical to (a) or (b)”, thereby encompassing polypeptides that contain substitutions. However, Applicants respectfully submit that the rejection has been rendered moot by the instant amendment. Applicants have also made minor amendments to improve form and/or direct the claims to particular embodiments.

Claim 158 stands rejected as allegedly lacking antecedent basis for the recitation “two different substituents”. Applicants respectfully disagree that antecedent basis is required for this phrase but have amended the claim to recite that the polypeptide comprises at least two substituents, wherein the substituents are different.

Claims 123, 139, 140, 151, 155, and 157 stand rejected as allegedly indefinite for being dependent on indefinite claims. Claim 123 has been canceled. Applicants respectfully submit that the allegedly indefinite claims on which claims 139, 140, 151, 155, and 157 depend (i.e., claims 144, 145, and 150) have been amended, thereby obviating the rejection.

Applicants respectfully request reconsideration and withdrawal of the rejections under 35 USC 112, second paragraph.

#### Rejections under 35 U.S.C. 103

Claims 150, 151, 155, and 157 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kushnirov, et al., 1988 (Gene, 66, pp. 45-54). While Applicants respectfully disagree with the rejection, solely in the interests of advancing prosecution Applicants have amended claim 150 such that the claim is now directed to polynucleotides recited in claim 124 or claim 127 that have at least one substituent selected from the group consisting of an enzyme, a metal atom, an affinity binding molecule having a specific affinity binding partner, a carbohydrate, a fluorescent dye, a chromatic dye, an antibody, a growth factor, a hormone, a cell adhesion molecule, a toxin, a detoxicant, a catalyst, a light-harvesting substituent, and a light altering substituent attached to a side chain of the SCHAG polypeptide. Applicants respectfully submit that claimed subject matter does not encompass Sup35. Withdrawal of the rejection is respectfully requested.

## CONCLUSION


In conclusion, Applicants respectfully submit that the instant amendment places the application in condition for allowance. Applicants respectfully request that the restriction requirement, objection, and rejections be withdrawn and that the claims be allowed.

If this response requires any fee or a petition for extension of time that has not been filed herewith, then please consider this a request for such extension of time and charge any fees due to charge Marshall, Gerstein & Borun, LLP, deposit account number 13-2855, under matter number 30554/34978A.

Respectfully submitted,

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